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ABSTRACT

The United States armed forces adopted "zero tolerance" policies concerning illicit drug use in 1980, and later developed policies to discourage tobacco and alcohol abuse. This paper examines drug use among young active-duty recruits both before and after enlistment, compared with non-military age-mates. It also documents historical shifts in such drug use across two decades. Analyses employed longitudinal panel data from 20 nationally representative samples of high school seniors (cohorts of 1976-1995) each surveyed just before graduation and again within two years. Separate analyses for men (n=12,082) and women (n=15,345) contrasted those who entered military service, college, and civilian employment. Results show that illicit drug use declined more among young military recruits than among their civilian counterparts. Analyses of male recruits at multiple time periods showed declines in the prevalence of marijuana use and cocaine use after the initiation of routine military drug testing. Lower proportions of smokers of half a pack or more cigarettes per day elected to enter service after initiation of tobacco bans during basic training. An appendix discusses racial/ethic differences. Tables contrast substance use between high school seniors, college students, civilians, and those in military service. (Contains 11 tables, 3 figures, and 29 references.) (Author/MKA)

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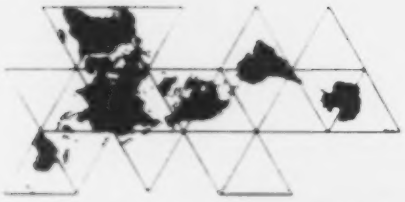

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COMPARING DRUG-USING BEHAVIORS AMONG HIGH SCHOOL GRADUATES ENTERING MILITARY SERVICE, COLLEGE, AND CIVILIAN EMPLOYMENT

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Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth

As its title suggests, this study is intended to assess the changing lifestyles, values, and preferences of American youth on a continuing basis. Each year since 1975 about 17,000 seniors have participated in the annual survey, which is conducted in some 130 high schools nationwide. In addition, subsamples of seniors from previously participating classes receive follow-up questionnaires by mail each year.

This Occasional Paper Series is intended to disseminate a variety of products from the study, including pre-publication (and somewhat more detailed) versions of journal articles, other substantive articles, and methodological papers.

A full listing of occasional papers and other study reports is available from Monitoring the Future, Institute for Social Research, The University of Michigan, P.O. Box 1248, Ann Arbor, MI 48106.

COMPARING DRUG-USING BEHAVIORS AMONG HIGH SCHOOL GRADUATES ENTERING MILITARY SERVICE, COLLEGE, AND CIVILIAN EMPLOYMENT

Monitoring the Future Occasional Paper 42

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Institute for Social Research
The University of Michigan
1999

TABLE OF CONTENTS

LIST OF TABLES v

LIST OF FIGURES vii

ABSTRACT ix

ACKNOWLEGEMENTS x

INTRODUCTION 1

METHODS 2

- Samples and Survey Methods 2
- Drug Use Measures 3
- Statistical Analysis 4

RESULTS 4

- Drug Use of Men and Women Across Total Time Period 4
- Drug Use Among Men in Military Service: Changes Across Two Decades 5

DISCUSSION 6

REFERENCES 9

APPENDIX 13

- Racial/Ethnic Differences 13

LIST OF TABLES

Table 1. Cases Available by Sex and Class Year Groupings 17

Table 2. Distributions of Senior Year Substance Use Among Male Follow-Up Respondents and the Weight Assigned at Each Substance Use Level to Adjust for Differential Panel Attrition: Class Years 1976–1995 18

Table 3. Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Females (1976–1995) 19

Table 4. Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males (1976–1995) 20

Table 5. Prevalence of Half Pack a Day or More Cigarette Smoking During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males 21

Table 6. Prevalence of 5+ Drinks in a Row in the Last Two Weeks During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males 22

Table 7. Prevalence of Marijuana Use in the Last 30 Days During Senior Year, and One to Two Years After High School, by Occupation/ Living Arrangements: Males 23

Table 8. Prevalence of Cocaine Use in the Last 30 Days During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males 24

Table 9. Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: White Males (1976–1995) 25

Table 10. Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Black Males (1976–1995) 26

Table 11. Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements Hispanic Males (1976–1995) 27

LIST OF FIGURES

Figure 1. Prevalence of Substance Use by Gender (1976–1995, combined)..... 31

Figure 2. Changes in Prevalence of Smoking and Heavy Drinking Among Men in Different Time Periods 32

Figure 3. Changes in Prevalence of Illegal Drug Use Among Men in Different Time Periods..... 33

ABSTRACT

Objectives

The U.S. armed forces adopted "zero tolerance" policies concerning illicit drug use in 1980 and later developed policies to discourage tobacco and alcohol abuse. This Occasional Paper (a) examines drug use among young active-duty recruits both before and after enlistment, compared with non-military age-mates, and (b) documents historical shifts in such drug use across two decades.

Methods

Analyses employed longitudinal panel data from 20 nationally representative samples of high schooi seniors (cohorts of 1976–1995), each surveyed just before graduation and again within two years. Separate analyses for men (n = 12,082) and women (n = 15,345) contrasted those who entered military service, college, and civilian employment.

Results

Illicit drug use declined more among young military recruits than among their civilian counterparts. Analyses of male recruits at multiple time periods showed (a) declines in prevalence of marijuana use and cocaine use after the initiation of routine military drug testing and (b) lower proportions of smokers of half a pack or more cigarettes per day electing to enter service after the initiation of tobacco bans during basic training.

Conclusions

Recent military drug policies appear to deter illicit drug use among enlistees and discourage some smokers from enlisting.

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INTRODUCTION

Stereotypes of psychoactive substance use in military service abound, and they extend back through centuries. Rations of rum were deemed essential for soldiers' morale in the American Revolutionary Army, and the picture of the hard-drinking U.S. serviceman has persisted (Ingraham, 1984), at least until very recently. Similarly, GIs in World War I and II were issued cigarettes with their rations and routinely pictured smoking cigarettes. The use of illicit drugs among military personnel in Vietnam was widespread and widely publicized (Reinstein, 1972; Segal, 1977; Stanton, 1976).

In recent years, however, a dramatically different picture has emerged concerning drug use in the U.S. armed forces; a policy of "zero tolerance" with respect to illicit drug use is firmly in place, and new policies promoting healthy lifestyles have focused attention on reducing tobacco use and alcohol abuse (Borack, 1998; Bray, Marsden, Herbold, & Peterson, 1992; Department of Defense, 1980, 1984, 1986a, 1986b). Because military service involves a high level of commitment to, and involvement in, an institution that strictly organizes many aspects of an individual's lifestyle, these new policies might reasonably be expected to have important impacts on the behaviors of military personnel.

Surveys conducted by the U.S. Department of Defense have documented decreases in illicit drug use (Bray, Kroutil, & Marsden, 1995; Bray, Kroutil, Wheeless et al., 1995) and in cigarette smoking (Kroutil, Bray, & Marsden, 1995) among service personnel from 1980 through 1995. In this article, we attempt to place these changes within the context of important broad secular trends in civilian substance use during that period (Johnston, O'Malley, and Bachman, 1996, 1997; Substance Abuse and Mental Health Services Administration, 1998) and also to explore to what extent changes in the military reflect "selection" (i.e., different kinds of individuals entering the armed forces) versus "socialization" (changes in substance use after entry). This research, using nationwide survey data from the Monitoring the Future project, tracks respondents longitudinally starting at the end of high school, thereby permitting examination of drug use patterns both before and after enlistment. Our analyses also include large non-military comparison groups, thus providing data on broad secular trends.

Earlier analyses of Monitoring the Future panel data covering two decades (1976–1995) have shown overall differences in drug use between those in military service and those in civilian jobs, both before and after extensive controls for marital and parental status, educational status, and living arrangements; however, those analyses did not explore whether drug use patterns linked to military service shifted throughout this period (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997). A central feature of the present research is its focus on changes in military-related drug use patterns during the past two decades. These analyses are not able to examine service-specific substance use policies and their impacts, and thus they cannot substitute for detailed Department of Defense surveys; rather, they provide broad comparisons that may have policy implications for the population as a whole.

METHODS

Samples and Survey Methods

This article employs panel data from the Monitoring the Future project, an ongoing nationwide study of youth conducted by the Institute for Social Research under a series of grants from the National Institute on Drug Abuse (Bachman, Johnston, & O'Malley, 1996; Bachman, Wadsworth et al., 1997; Johnston et al., 1996, 1997). The project's cohort-sequential design includes (a) self-completed questionnaires group-administered to nationally representative samples of approximately 17,000 high school seniors in the spring of each year, beginning with the class of 1975 and continuing with each class thereafter (average response rate of 83 percent); and (b) follow-up surveys mailed to subsamples (2,400 individuals) from each senior class. The first follow-up surveys of each class are sent either one year (for a random half of each sample) or two years after graduation (average response rate of 80 percent). Panel analyses that included later follow-up surveys, which occur at two-year intervals, have been reported in other publications (Bachman, Segal, Freedman-Doan, & O'Malley, 1998; Bachman, Wadsworth et al., 1997); data from the later follow-ups were not used in the present analyses.

Our purpose was to examine patterns of change in drug use when young adults enter military service and how those patterns may have shifted throughout the two decades since 1976. The panel data reported here can be characterized as largely representative of young individuals who enlist soon after high school graduation. However, the data have the following limitations: (1) within each follow-up cohort, enlistees constitute relatively small numbers of men and very small numbers of women, and the small numbers limit the reliability of point estimates; (b) panel attrition is slightly greater among drug users, so very modest reweightings were incorporated in the analyses to avoid underestimating drug use, particularly cigarette use (Johnston et al., 1996, 1997);[1] (c) other analyses of Monitoring the Future data reveal that those in military

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[1]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The follow-up samples are drawn so as to be largely self-weighting with one important exception: because the primary focus of the study is on drug use, users of illicit drugs (as seniors) are over-sampled for follow-ups (by a factor of three-to-one), and sampling weights are used in all analyses to adjust for the differential selection probabilities. Additionally, there is a modest differential in panel attrition associated with substance use, and the distortion produced by such attrition is corrected using another set of weights. Different weights are used for each substance in these analyses. The weights are based on the observed differences between (a) the distribution of twelfth grade use reports for the relevant substance based on only those who participated in the follow-up survey, and (b) the corresponding distribution of use based on the full senior year samples. Applying both sets of weights has the effect of reproducing the distribution of (senior year) use shown by the full senior year samples. As shown in Table 1, (a) the weights for the great majority of respondents, along any of the four dimensions of drug use, range between 0.95 and 1.16; and (b) none of the weights exceeds 1.60. Those few cases whose heavy drug use merited assigning them the highest weights were also in the group that was over-sampled by a factor of three. So, for example, anyone assigned a weight of 1.30 for cocaine use was also assigned a weight of 0.333 as part of the over-sampled drug users group. The combined weight for such an individual would be 1.30 x 0.333 = 0.433. We have concluded that incorporating the correction for panel attrition into the weighting scheme yields more accurate reports of overall proportions of drug users; however, analyses

service are somewhat more likely than average to underreport past illicit drug use, and perhaps also their more recent use; however, the evidence suggests that such effects are modest (Johnston & O'Malley, 1997). Moreover, comparisons of the present findings with worldwide military surveys, conducted anonymously by civilian agencies (Bray et al., 1995a), show no statistically significant differences.

As discussed elsewhere (Bachman, Freedman-Doan, Segal, & O'Malley, 1997; Bachman, Segal et al., 1998), most new high school graduates choose either college or civilian employment as their next primary activity, with small proportions of men and very small proportions of women choosing military service. Accordingly, in this paper focusing on young graduates in military service, we chose as comparison groups those in full-time education and those in full-time employment. Prior analyses of Monitoring the Future panel data have found substantial differential changes in drug use rates linked to living arrangements, particularly leaving parents' home (Bachman, Wadsworth et al., 1997; Bachman, O'Malley, & Johnston, 1984). Virtually all of those in the military subsamples had left the parental home, but for the comparison groups it was useful to make further distinctions according to whether or not they were still living with their parents at the time of follow-up.

These analysis decisions yielded subgroups and total (weighted) numbers of young (modal age 19–20 years) high school graduates as shown in Table 1. The left side of the table combines 20 graduating classes (1976–1995), and presents data separately for men and women. The right portion of the table shows data for men separated into five groupings of four graduating classes each (1976–1979, 1980–1983, 1984–1987, 1988–1991, 1992–1995). The numbers of women enlistees were too small to justify a similar breakdown in this article.

Drug Use Measures

Among the large set of self-report drug use measures included in the Monitoring the Future surveys, the following four prevalence measures were selected for examination: (a) daily use of half a pack or more of cigarettes (during the past 30 days), (b) consumption of five or more alcoholic drinks in a row on at least one occasion during the past two weeks, (c) any use of marijuana during the past 30 days, and (d) any use of cocaine during the past 30 days. Although data are also available for use during the past 12 months for the two illicit drugs, we felt that the current (past month) data would be more sensitive to changes. All of these measures are identical in senior year and follow-up surveys and are described in detail in other publications (Johnston et al., 1996, 1997; Johnston, Bachman, & O'Malley, 1997). Other panel analyses of Monitoring the Future data have found that patterns of cross-time correlations for substance use measures, and estimates of reliability, are largely consistent over the past two decades (Bachman, Wadsworth et al., 1997).

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omitting this correction did not substantially change any of the relationships reported here. Table 1 reports the weights assigned to correct for panel attrition.

Statistical Analyses

For each of the four drug use dimensions, we computed three scores for each individual: (a) "Before" (i.e., end of the senior year of high school) drug use, coded "1" (indicating use at the specified level) or "0"; (b) "After" (i.e., one or two years after high school) drug use, similarly coded "1" or "0"; and (c) "Change," calculated as the After score minus the Before score (with -1, 0, and +1 as possible scores). Analyses were carried out separately for men and women. Significance tests contrasted the military enlistee subgroup with each of the other subgroups, on all three scores (Before, After, and Change) for each of the four substance use measures, and in each of the five 4-year time periods. The Dunnett test was used to calculate statistical significance at the level of 0.05 (two-tailed). The Dunnett test was appropriate because it is designed to hold the maximum experimentwise error rate involved in multiple comparisons to a level less than or equal to 0.05 (Dunnett, 1955). Further, a sign statistic was calculated for each change score to test the null hypothesis that the sample median was zero (indicating no change). Unless otherwise stated, all differences and contrasts discussed in the text are significant; a detailed reporting of significance tests and percentage values corresponding to Figures 1 through 3 is available in Tables 3 through 8.

RESULTS

Drug Use of Men and Women Across Total Time Period

Figure 1 (Tables 3 and 4) presents prevalence rates for all four types of drug use, shown separately for men and women across all 20 graduating classes combined (1976–1995). Those who entered military service were about two and one-half times as likely to be half-pack-per-day cigarette smokers as those who entered college. This was true at the end of high school, and remained true one to two years later. Smoking rates for those who entered the military were fairly similar to rates for those who entered full-time civilian employment. The figure also shows, for all subgroups, substantial increases in proportions of those who smoked more than a half pack per day. This reflects the fact that many who were regular smokers during high school increased their consumption soon after graduation, often crossing the half-pack threshold (Bachman, Wadsworth et al., 1997).

The prevalence of occasional heavy drinking, defined as consuming five or more drinks in a row at least once during the preceding two weeks, increased 6 percent (nonsignificant) among young men who entered military service, and more markedly among those who left home to enter college. The drinking data for the small number of women who entered military service do not replicate those for men; they showed a small (nonsignificant) decrease, which contrasts with the sharp increase among women who left home to go to college.

Figure 1 also shows that, for both men and women throughout most of the past two decades, the prevalence of marijuana use dropped sharply after military enlistment and

prevalence of cocaine use decreased somewhat. Among men, the change in prevalence of marijuana among enlistees was significantly different from (more negative than) the changes for any of the comparison groups; similarly, marijuana change scores among the small number of female enlistees showed more decrease than among any of the comparison subgroups (all comparisons except one were statistically significant). The cocaine use patterns, although broadly consistent with those for marijuana, involved relatively low prevalences, and many comparisons did not reach statistical significance.

Figure 1 shows gender similarities in some respects and gender differences in other respects. The overall *patterns of change* between base-year and follow-up are fairly parallel between men and women across all subgroups, suggesting that the factors contributing to change are similar across genders. However, overall *prevalence rates* differ importantly, with somewhat more men than women reporting marijuana use and cocaine use and substantially more men reporting instances of heavy drinking (consistent with gender differences, on average, in the physical effects of five or more drinks in a row). This illustrates why analyses that combined men and women would be inappropriate: the military subgroup would show misleadingly high levels of heavy drinking, for example, because it consists of about 87 percent men, in contrast to the other groups, which all consisted of more equal proportions of women and men.

Drug Use Among Men in Military Service: Changes Across Two Decades

The upper portion of Figure 2 (Table 5) shows that daily consumption of a half pack or more of cigarettes declined among the total samples of young men (shaded lines) from the mid-1970s through the mid-1980s (equally true for base year and follow-up) and then showed relatively little change thereafter. Among young male enlistees, however, the change across time was more dramatic. Specifically, during the first three time intervals (covering the high school classes of 1976–1987, with follow-up surveys in 1977–1989), half-pack-per-day smoking rates among young male enlistees were roughly half again as large as the average rates for all young men; however, during the last two intervals (classes of 1988–1995, follow-ups in 1989–1997), smoking rates among male enlistees were just about equal to the overall averages for men. Significantly, Figure 2 also suggests that this abrupt shift reflected selection factors—that is, a decline in the proportions of smokers who became recruits—rather than any sort of socialization factors causing a decline in smoking after entry. Indeed, half-pack-per-day smoking rates increased at least as much among men who entered military service as among those who entered other walks of life, but from the late 1980s onward, the military no longer attracted disproportionate numbers of young men who had been half-pack-a-day smokers before they left high school.

The lower portion of Figure 2 (Table 6) shows that instances of heavy drinking declined among young men in general during the past two decades, and that the same was true for military recruits. For the first three time intervals, the data for military recruits were fairly similar to the data for young men who left home to go to college; however, in

the last two intervals the recruits did not show increases of the sort shown by the students who had left home (change scores are significantly different for the last interval only).

Figure 3 (Tables 7 and 8) shows that illicit drug use among young enlistees shifted substantially over the past two decades. The findings are mostly parallel for the two illicit drugs shown, although the patterns are more pronounced for the widely used drug marijuana than for cocaine. Marijuana use among the total samples of young men (shaded lines in Figure 3, upper portion; also Table 7) declined substantially during the 1980s, but the shifts in marijuana use among young enlistees were far more pronounced than the general downward secular trend. During the senior year of high school, young men who would soon enter military service were about as likely as their classmates to have used marijuana during the month preceding the survey; however, from 1981 onward, marijuana use dropped dramatically after enlistment, in contrast to the post-high school use rates for all of the comparison groups (of 16 change score comparisons matching military enlistees with four comparison groups at each of four time periods, 13 showed significant differences). The patterns for cocaine prevalence were similar, as noted above; however, the overall use levels for all groups were low, and most differences fell short of statistical significance.

DISCUSSION

The analyses of young men and women reported here employed panel data from the Monitoring the Future project and focused on changes in substance use among those who enter military service during the first year or two after high school (see Figure 1 and Tables 3 and 4). These analyses provide results consistent with earlier analyses of Monitoring the Future data that covered up to 14 years after high school (Bachman, Wadsworth et al., 1997). The additional analyses focusing on young men at multiple time periods (Figures 2 and 3, Tables 5, 6, 7, and 8) yielded important new insights by documenting how substance use among military recruits has changed during the past two decades. Of course, correspondence among historic events is not sufficient to demonstrate causation; nevertheless, the shifts in substance use rates among new young recruits coincide closely with new military policies and are at least strongly suggestive of causal relationships.

Illicit drug use, especially marijuana use, showed striking declines among young men who enlisted in military service during the 1980s, a time when such use also declined for the population as a whole. The present study, however, shows that beginning in 1981 the declines among those in military service were more pronounced than the declines among their civilian counterparts. In 1980, all branches of the armed forces began mandatory routine urinalysis testing for opiates, barbiturates, amphetamines, and cocaine. In late 1981, the navy initiated a program of urinalysis testing for illicit drugs, including marijuana, using portable testing units; the program was expanded to include annual random testing of all service personnel and testing of all recruits during the accession process (Bray et al., 1992).

There has been much debate about the relative merits of "supply reduction" and "demand reduction" as alternative (but not incompatible) strategies for reducing illicit drug use (Kleber, 1994). Although demand reduction generally refers to a reduction in the extent to which individuals "choose" to use drugs, that strategy leaves open many pathways toward reaching such choices—including options ranging from education to fairly strong coercion. Potential military recruits are explicitly warned that they will be tested periodically for illicit drug use and that discovery of use is grounds for dismissal. Furthermore, in an institution like the military, monitoring can be extensive and a violation can effect broad range of life consequences. Our data show that under these circumstances, which we might describe as "coerced demand reduction," very high proportions of servicemen and servicewomen have "chosen" not to use illicit drugs, consistent with other analyses focused on navy personnel (Borack, 1998).

The prevalence of half-pack-per-day smoking among male recruits shifted sharply in the late 1980s. In the late 1970s, young men entering military service were similar to those entering civilian employment in terms of their cigarette use and were about three times as likely as college-bound young men to be smokers of a half pack or more per day. Although smoking rates for all subgroups dropped during the next decade, reflecting important overall cohort-related changes (Johnston et al., 1996; Johnston, Bachman, & O'Malley, 1997), the relationships among these subgroups remained much the same until the late 1980s. However, beginning in the mid-1980s, the armed forces adopted a series of reforms designed to reduce tobacco use among military personnel. Smoking cessation courses were offered to all service persons, smoke-free building policies were established, and cigarette prices at post commissaries were increased. Most importantly, beginning in 1989, all new recruits were required to be tobacco-free during the basic training period (Department of Defense, 1986a, 1986b, 1987, 1994). Clearly these actions—taken by the Office of the Assistant Secretary of Defense for Health Affairs, other Department of Defense agencies, and base commands—have changed the institutional culture of the military regarding tobacco, and by the late 1980s that change was communicated quite clearly to most prospective recruits, particularly those who were already regular smokers.

It is instructive to contrast two kinds of change—those involving illicit drugs, especially marijuana, and those involving smoking. For both types of substances, (a) major departures from general historical patterns (secular trends) occurred; and (b) although they occurred at somewhat different times, the changes in drug use corresponded closely with dramatic shifts in military policies. The nature of the changes differed between substances, however, in ways that illustrate the different average levels of dependency.

Throughout the period under study, most high school seniors who reported any marijuana use during the past 30 days used it roughly once a week, and fewer than one in four users reported 20 or more uses (i.e., used it on a daily basis or nearly so) (Johnston et al., 1996, 1997). As shown in Figure 3 (Table 7), beginning early in the 1980s, nearly all those who used marijuana near the end of their senior year of high school were apparently able to stop such use if they entered the armed forces.

In contrast, those who were half-pack-per-day smokers by the end of high school were deeply involved (generally ten times or more per day) in a highly habit-forming behavior. It appears that many regular smokers were deterred from entering the armed forces when confronted with the prospect of a tobacco-free basic training experience (and perhaps some others entered briefly, only to discover firsthand that they could not meet the tobacco-free basic training requirement). So, whereas the changes in marijuana use associated with military service fit a socialization pattern in which individuals change their behaviors in response to new social situations, the changes involving smoking appear to reflect primarily selection (i.e., fewer smokers select entrance into military service). Moreover, Figure 2 (Table 5) suggests that the smoking habit is deeply enough ingrained that most smokers who make it through basic training quickly return to the habit; these findings are consistent with a recent study of over 3,000 Air Force recruits that found that 74 percent of tobacco users returned to use within 90 days after being forced to abstain during basic training (Williams, Gackstetter, Fiedler, & Hermesch, 1996).

In sum, it appears that efforts by the armed forces to prevent illicit drug use are having considerable success. The story for legally available substances is more complicated. Reducing instances of heavy drinking remains a difficult challenge facing the armed forces, given the extent to which being able to "hold one's liquor" is part of the stereotype of the typical soldier. Efforts to reduce tobacco use in the military may have made enlistment less attractive to those who are already regular (i.e., half-pack-per-day or more) smokers before the end of high school; however, the challenge remains to reduce or eliminate tobacco use among those smokers who do enlist.

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APPENDIX

Racial/Ethnic Differences

Additional analyses were conducted on these samples to examine racial/ethnic differences in the relationships between substance use and post-high school environments. Prior research with MTF samples indicates that drug use is more prevalent among White young Americans than among their counterparts who are members of racial/ethnic minority groups (Bachman, Wallace, O'Malley, Johnston, Kurth, & Neighbors, 1991; Johnston, O'Malley, & Bachman, 1998; Wallace & Bachman, 1991). In particular, African American seniors have reported annual prevalence rates that are lower, and substantially lower for some substances, than annual prevalence rates among White or Hispanic seniors.

Tables 8, 9, and 10 present analyses of the samples used in this report for prevalence of substance use rates before and after entry into post-high school roles. The tables show results separately for men from three racial/ethnic groups across all 20 graduating classes combined (1976–1995). Comparison of the columns labeled "Total" in Tables 8, 9, and 10 reveals that White males in the first one or two years after high school, regardless of post-high school environment, had higher prevalence rates for all substances than did Black or Hispanic males. Hispanics were less likely to be half-pack-per-day smokers and marijuana users than Blacks, but Blacks were less likely than Hispanics to binge drink or use cocaine.

Among those who entered the armed forces, White men had higher prevalence rates than either Black or Hispanic men for smoking, heavy drinking, and cocaine use.[2] Over one-quarter of the White male servicemen smoked a half pack per day or more compared with about one-fifth of the Blacks and a mere five percent of the Hispanic servicemen. A majority (55 percent) of Whites reported recent heavy drinking, while fewer Blacks and Hispanics reported did so (40 percent and 33 percent respectively). Likewise, cocaine use, although rare for any of these sub-groups, was highest among White servicemen. Marijuana use among Black servicemen was slightly higher than among White servicemen and four times higher than among Hispanic servicemen.

In the main body of this paper we advanced the thesis that changes in military policy account for both the dramatic declines in illicit substance use since the mid-1980s and the more modest changes in tobacco use among young servicemen. Given the racial/ethnic differences in prevalence documented in Tables 8, 9, and 10, an alternative account of those declines might center on changes in the racial/ethnic composition of successive classes of new recruits. If recruit classes from the mid-1980s to the early 1990s were composed of ever-increasing proportion of Blacks and Hispanics, then the

[2]In these samples the numbers of Hispanics who entered the armed forces were very small. The confidence intervals around the point estimates are thus very large.

overall prevalence rates for illicit drugs and tobacco might have declined regardless of changes in military policy.

The analyses presented in this appendix strongly suggest that changes in racial/ethnic composition do not account for the observed declines in substance use among new recruits. Comparing prevalence rates among White servicemen (Table 8) with overall prevalence rates among all servicemen (Table 3) can give some notion of what the effects of racial/ethnic differences might have been.[3] If there were a large divergence between White-only substance use behavior and overall substance use behavior, the claim that declines in the military since the mid-1980s were due to changing racial/ethnic composition would gain support. However, Table 8 shows that just over 27 percent of newly recruited White servicemen smoked a half pack or more cigarettes per day. Table 3 shows that just under 27 percent of all newly recruited service men smoked at that threshold. Heavy drinking, marijuana use, and cocaine use show similar results. The prevalences reported by Whites did not diverge enough from the total sample of male recruits to suggest that changes over time in prevalence rates were due to changing racial/ethnic composition.

One set of racial/ethnic differences does merit further attention. Note that among Black servicemen, while the prevalence of rates for smoking and heavy drinking were not as high as those among White servicemen, Black servicemen showed much higher rates than Blacks in most other occupational/living arrangement niches. Nearly 20 percent of Black servicemen were half-pack-per-day smokers while in the military, compared with just 10 percent of the entire sample of Black males;[4] 40 percent of Black servicemen reported heavy drinking, while only one-quarter of the entire sample of Black males drank heavily. Nevertheless, Black servicemen were less likely to report cocaine or marijuana use than the total sample of Black young men. While Black servicemen as a group did not inordinately change the prevalence of licit (or for that matter, illicit) drug use among the total sample of young recruits, more individual Black servicemen took up smoking and drinking while in the military than their Black civilian peers, and fewer Black servicemen (like their service counterparts from other racial/ethnic groups) used illicit drugs.

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[3]The MTF follow-up samples were not constructed to over-sample racial/ethnic minority groups. Thus, the numbers of Black or Hispanic recruits in the pools of years presented in Tables 4–7 are too small for reliable comparisons with Whites within those pools.

[4]Prevalences both in the senior year and one to two years after high school were strongly related to college attendance; less than 2 percent of the Black college students smoked at the half-pack level during their senior year in high school, and about 3.7 percent smoked at that level during their first years of college.

TABLES

Table 1
Cases Available by Sex and Class Year Groupings[a]

	Males 1976–1995	Females 1976–1995	Males 1976–1979	Males 1980–1983	Males 1984–1987	Males 1988–1991	Males 1992–1995
Military[b]	792	167	141	178	196	172	105
Full-Time Job/Living With Parents	2,292	2,212	538	476	488	404	386
College/Living With Parents	2,244	3,015	425	478	434	483	425
Full-Time Job/Not With Parents	909	1,477	225	167	181	167	169
College/Not Living With Parents	3,646	4,823	655	682	686	847	776
Other	2,199	3,651	357	488	413	499	441
Total	12,082	15,345	2,341	2,469	2,398	2,572	2,301

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The actual number of cases is slightly higher. The cases presented here are for the heavy drinking item. All other drug questions have slightly higher response rates.

[b]Respondents are assigned to these categories sequentially. First, those who were serving in the active duty armed forces were coded "military." The remaining respondents were coded as "others." Next, among the pool of "others," those who had a full-time job and were living with their parents were identified and so coded. That coding process was repeated for each of the classifications used in these analyses.

Table 2

Distributions of Senior Year Substance Use Among Male Follow-up Respondents and the Weight Assigned at Each Substance Use Level to Adjust for Differential Panel Attrition: Class Years 1976–1995

	Percent of Cases in Follow-Up Samples (1977–1997)	Weight Assigned
Senior Year Cigarette Use/ Last 30 Days		
Not at all	70.78%	0.950
Less than one per day	10.20%	1.050
1–5 per day	6.42%	1.150
1/2 pack per day	5.86%	1.150
1 pack per day	5.16%	1.250
1 1/2 packs per day	1.24%	1.250
2 packs or more per day	0.34%	1.250
Senior Year Drinking 5+ Drinks in a Row/ Last 2 Weeks		
None	55.94%	0.974
Once	12.92%	0.934
Twice	10.81%	1.040
Three to five times	13.41%	1.060
Six to nine times	4.02%	1.120
Ten times or more	2.91%	1.270
Senior Year Marijuana Use/ Last 30 Days		
0 occasions	73.71%	0.960
1 to 2	8.36%	1.050
3 to 5	4.25%	1.090
6 to 9	3.11%	1.120
10 to 19	4.14%	1.160
20 to 39	3.12%	1.200
40 or more	3.31%	1.200
Senior Year Cocaine Use/ Last 30 Days		
0 occasions	95.88%	0.990
1 to 2	2.40%	1.150
3 to 5	0.80%	1.300
6 to 9	0.44%	1.300
10 to 19	0.27%	1.300
20 to 39	0.09%	1.300
40 or more	0.13%	1.300

Table 3
Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Females (1976–1995)[a]

	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
1/2 Pack or More Per Day Smokin	5.90% *	7.69% *	24.10% *	19.27%	17.19%	17.41%	12.92%
Senior Year	9.50% *	10.49% *	29.20%	22.63%	25.84%	20.89%	16.50%
One to Two Years After High School	3.60% *	2.80% *	5.10%	3.37% *	8.65%	3.48% *	3.58%
Change	4,810	3,077	1,532	2,316	171	3,840	15,746
N							
5+ Drinks in a Row/ Two Weeks	24.14%	21.55% *	33.83%	31.16%	30.01%	27.51%	26.44%
Senior Year	39.21% *	24.57%	29.59%	29.37%	27.22%	24.58%	30.38%
One to Two Years After High School	15.07% *	3.01%	-4.24%	-1.79%	-2.79%	-2.93%	3.93%
Change	4,823	3,015	1,477	2,212	167	3,651	15,345
N							
Marijuana Use in the Last 30 Day	16.85%	15.64%	29.10% *	24.97%	20.40%	22.41%	20.33%
Senior Year	20.71% *	14.47%	25.28% *	22.34% *	10.11%	18.85% *	19.58%
One to Two Years After High School	3.86% *	-1.17% *	-3.83%	-2.63% *	-10.29%	-3.56% *	-0.75%
Change	4,885	3,118	1,497	2,292	173	3,802	15,766
N							
Cocaine Use in the Last 30 Days	1.79%	1.97%	4.75%	3.56%	3.77%	3.11%	2.71%
Senior Year	2.91%	2.20%	4.94% *	4.00%	1.21%	3.67%	3.29%
One to Two Years After High School	1.12% *	0.24%	0.19%	0.44%	-2.57%	0.56%	0.58%
Change	4,941	3,183	1,523	2,334	174	3,876	16,032
N							

* Indicates that difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates of Senior Year drug use. The actual number of cases is slightly higher.

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Table 4
Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males (1976–1995)[a]

	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
1/2 Pack or More Per Day Smoking							
Senior Year	5.55% *	7.58% *	24.38% *	21.65%	19.13%	16.60%	13.43%
One to Two Years After High School	8.48% *	9.56% *	32.03% *	26.37%	26.84%	20.85% *	17.46%
Change	2.93% *	1.98% *	7.65%	4.73% *	7.72%	4.25% *	4.03%
N	3,741	2,335	987	2,443	838	2,370	12,715
5+ Drinks in a Row/ Two Weeks							
Senior Year	40.85% *	37.65% *	54.21% *	49.64%	45.29%	45.36%	44.00%
One to Two Years After High School	55.21%	40.22% *	49.83%	48.46%	51.61%	44.15% *	48.50%
Change	14.36% *	2.56%	-4.38% *	-1.17% *	6.32%	-1.21% *	4.50%
N	3,646	2,244	909	2,292	792	2,199	12,082
Marijuana Use in the Last 30 Days							
Senior Year	22.94% *	20.63% *	35.33% *	31.86%	28.59%	30.29%	26.88%
One to Two Years After High School	29.17% *	20.54% *	31.57% *	28.93% *	14.22%	27.29% *	26.41%
Change	6.23% *	-0.08% *	-3.76% *	-2.93% *	-14.37%	-3.00% *	-0.48%
N	3,707	2,308	966	2,409	818	2,314	12,522
Cocaine Use in the Last 30 Days							
Senior Year	2.54%	3.15%	6.90% *	5.93% *	3.57%	5.27%	4.20%
One to Two Years After High School	4.54% *	3.68%	6.94% *	6.09% *	1.85%	5.42% *	4.85%
Change	2.00% *	0.53% *	0.04%	0.16%	-1.72%	0.15%	0.65%
N	3,751	2,346	985	2,452	830	2,363	12,728

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates of Senior Year drug use. The actual number of cases is slightly higher.

Table 5

Prevalence of Half Pack a Day or More Cigarette Smoking During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males[a]

1976–1979	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
Senior Year	8.50% *	9.85% *	30.78%	27.25%	29.13%	22.67%	18.85%
One to Two Years After High School	10.93% *	12.51% *	39.52%	32.78% *	43.50%	25.93% *	23.56%
Change	2.43% *	2.66% *	8.74%	5.54% *	14.37%	3.27% *	4.70%
N	661	435	241	578	154	382	2,450
1980–1983							
Senior Year	6.08% *	7.97% *	26.73%	22.90%	22.66%	17.27%	14.60%
One to Two Years After High School	8.45% *	10.85% *	32.59%	28.15%	30.50%	22.45% *	18.84%
Change	2.37% *	2.88%	5.86%	5.25%	7.84%	5.18%	4.24%
N	698	492	179	495	190	524	2,577
1984–1987							
Senior Year	3.79% *	4.37% *	18.41%	18.74%	18.36%	12.98%	10.90%
One to Two Years After High School	6.32% *	5.88% *	28.05%	21.86%	24.02%	18.23%	14.66%
Change	2.53%	1.51%	9.64%	3.12%	5.65%	5.25%	3.76%
N	708	449	202	516	199	437	2,512
1988–1991							
Senior Year	4.26% *	9.20%	20.96% *	21.04% *	12.07%	15.46%	11.72%
One to Two Years After High School	7.58% *	9.57% *	27.56% *	24.71%	18.19%	19.81%	15.16%
Change	3.32%	0.37%	6.61%	3.66%	6.12%	4.36%	3.44%
N	876	504	179	438	181	537	2,716
1992–1995							
Senior Year	5.60%	6.36%	23.65% *	16.60%	12.36%	15.63%	11.28%
One to Two Years After High School	9.38%	8.98%	30.44% *	22.70%	17.06%	18.65%	15.36%
Change	3.78%	2.62%	6.80%	6.10%	4.70%	3.02%	4.08%
N	799	455	186	416	115	490	2,460

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The actual number of cases is slightly higher.

Table 6
Prevalence of 5+ Drinks in a Row in the Last Two Weeks During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males[a]

1976–1979	College / Not Living with Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Live With Parents	Military—Active Duty	Other	Total
Senior Year	43.26%	42.55%	61.55% *	56.59% *	46.38%	56.49%	50.09%
One to Two Years After High School	55.96%	49.04%	59.45%	55.99%	55.75%	54.59%	54.80%
Change	12.70%	6.49%	-2.09%	-0.60%	9.38%	-1.90% *	4.71%
N	655	425	225	538	141	357	2,341
1980–1983							
Senior Year	51.39%	39.94% *	66.32%	54.70%	55.43%	51.63%	51.15%
One to Two Years After High School	62.19%	42.07% *	53.44%	53.40%	58.23%	46.33% *	52.63%
Change	10.80%	2.13%	-12.88% *	-1.30%	2.80%	-5.30%	1.48%
N	682	478	167	476	178	488	2,469
1984–1987							
Senior Year	42.01%	40.79%	55.28%	51.17%	45.94%	45.71%	45.58%
One to Two Years After High School	55.62%	40.56% *	50.06%	49.46%	54.16%	42.77% *	48.89%
Change	13.60%	-0.22%	-5.22% *	-1.70% *	8.22%	-2.94% *	3.31%
N	686	434	181	488	196	413	2,398
1988–1991							
Senior Year	37.05%	36.22%	41.68%	46.93% *	35.47%	42.69%	39.73%
One to Two Years After High School	53.08% *	37.42%	40.41%	43.72%	43.35%	42.25%	45.14%
Change	16.03%	1.19%	-1.28%	-3.21% *	7.88%	-0.43%	5.41%
N	847	483	167	404	172	499	2,572
1992–1995							
Senior Year	32.37%	28.49% *	43.09%	34.36%	41.60%	31.81%	33.04%
One to Two Years After High School	50.23%	32.05%	42.26%	35.42%	43.62%	36.56%	40.89%
Change	17.86% *	3.56%	-0.82%	1.06%	2.02%	4.76%	7.85%
N	776	425	169	386	105	441	2,301

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The actual number of cases is slightly higher.

Table 7
Prevalence of Marijuana Use in the Last 30 Days During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males[a]

1976–1979	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
Senior Year	34.16% *	33.33% *	49.30%	45.43%	46.72%	47.21%	40.87%
One to Two Years After High School	47.40%	35.64%	43.78%	41.77%	42.77%	42.93%	42.66%
Change	13.24% *	2.30%	-5.52%	-3.66%	-3.95%	-4.27%	1.79%
N	651	424	235	560	146	363	2,379
1980–1983							
Senior Year	31.32% *	25.88% *	48.93%	36.33%	42.04%	38.85%	34.70%
One to Two Years After High School	35.60% *	24.28%	41.59% *	33.57% *	16.56%	32.39% *	31.45%
Change	4.28% *	-1.60% *	-7.34% *	-2.75% *	-25.48%	-6.46% *	-3.25%
N	690	490	170	499	182	512	2,542
1984–1987							
Senior Year	22.70%	20.63%	29.85%	29.38%	22.33%	27.37%	25.02%
One to Two Years After High School	25.48% *	19.01% *	26.78% *	25.58% *	4.53%	24.57% *	22.63%
Change	2.78% *	-1.62% *	-3.07% *	-3.80% *	-17.80%	-2.80% *	-2.40%
N	698	444	199	501	197	433	2,472
1988–1991							
Senior Year	14.58%	13.02%	22.43% *	23.16% *	13.30%	19.63%	17.11%
One to Two Years After High School	19.18% *	11.76%	21.11% *	16.45% *	4.88%	18.56% *	16.43%
Change	4.61% *	-1.26%	-1.32%	-6.71%	-8.42%	-1.07%	-0.68%
N	869	493	176	437	180	530	2,685
1992–1995							
Senior Year	15.21%	10.88%	21.97%	19.49%	18.07%	21.81%	17.03%
One to Two Years After High School	22.12% *	12.99%	20.95% *	22.56% *	5.11%	21.38% *	19.47%
Change	6.91% *	2.10% *	-1.02% *	3.07% *	-12.97%	-0.44% *	2.44%
N	799	457	185	413	113	477	2,445

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The actual number of cases is slightly higher.

Table 8

Prevalence of Cocaine Use in the Last 30 Days During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Males[a]

1976–1979	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
Senior Year	3.00%	4.16%	8.42% *	5.37%	2.87%	6.64%	4.83%
One to Two Years After High School	7.46%	6.29%	11.21%	7.92%	5.64%	9.95%	7.98%
Change	4.46%	2.13%	2.79%	2.55%	2.77%	3.31%	3.16%
N	663	438	237	570	150	378	2,436
1980–1983							
Senior Year	3.71%	4.59%	10.13%	8.05%	6.45%	6.65%	5.94%
One to Two Years After High School	8.95% *	6.52%	10.29% *	8.01% *	2.17%	8.11% *	7.75%
Change	5.24% *	1.93% *	0.16%	-0.03%	-4.28%	1.46% *	1.81%
N	703	495	181	513	187	535	2,614
1984–1987							
Senior Year	3.75%	4.76%	10.25% *	8.37%	4.45%	7.15%	6.04%
One to Two Years After High School	4.98%	4.85%	7.45% *	8.83% *	1.56%	6.10% *	5.86%
Change	1.22%	0.09%	-2.80%	0.46%	-2.89%	-1.05%	-0.18%
N	708	452	206	515	198	430	2,509
1988–1991							
Senior Year	1.86%	1.54%	2.72%	4.86% *	1.33%	4.18%	2.76%
One to Two Years After High School	1.42%	0.52%	2.73%	2.07%	0.00%	2.09%	1.48%
Change	-0.44%	-1.02%	0.01%	-2.78%	-1.33%	-2.10%	-1.28%
N	882	505	175	439	179	537	2,716
1992–1995							
Senior Year	0.76%	0.78%	1.80%	2.16%	1.77%	2.13%	1.39%
One to Two Years After High School	1.16%	0.38%	1.51%	2.07%	0.00%	1.90%	1.28%
Change	0.40%	-0.41%	-0.29%	-0.09%	-1.77%	-0.22%	-0.11%
N	796	456	187	416	116	482	2,453

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates by drug use. The actual number of cases is slightly higher.

Table 9
Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: White Males (1976–1995)[a]

	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
1/2 Pack or More Per Day Smoking							
Senior Year	5.57% *	7.74% *	24.69% *	21.61%	20.55%	17.50%	13.51%
One to Two Years After High School	8.41% *	10.06% *	33.50% *	26.41%	27.42%	22.19% *	17.66%
Change	2.84% *	2.32% *	8.81%	4.80%	6.87%	4.69%	4.15%
N	3,198	1,851	770	1,957	649	1,775	10,200
5+ Drinks in a Row/ Two Weeks							
Senior Year	43.78% *	41.01% *	57.09% *	52.21%	49.27%	48.64%	47.02%
One to Two Years After High School	59.12%	44.26% *	52.30%	51.08%	54.69%	47.68% *	52.14%
Change	15.34% *	3.25%	-4.79% *	-1.13% *	5.42%	-0.96% *	5.12%
N	3,258	1,854	747	1,920	640	1,738	10,156
Marijuana Use in the Last 30 Days							
Senior Year	23.39% *	20.91% *	35.53% *	31.95%	29.50%	30.45%	27.09%
One to Two Years After High School	30.05% *	21.28% *	31.64% *	29.18% *	14.64%	28.20% *	27.11%
Change	6.66% *	0.37% *	-3.90% *	-2.77% *	-14.85%	-2.25% *	0.02%
N	3,267	1,886	784	1,991	641	1,787	10,355
Cocaine Use in the Last 30 Days							
Senior Year	2.72%	3.09%	7.06% *	5.71% *	3.42%	5.21%	4.16%
One to Two Years After High School	4.88% *	3.95%	7.32% *	6.29% *	2.07%	5.93% *	5.17%
Change	2.16% *	0.86%	0.25%	0.59%	-1.35%	0.72%	1.01%
N	3,300	1,905	783	2,007	651	1,804	10,449

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates Senior Year drug use. The actual number of cases is slightly higher.

Table 10
Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements: Black Males (1976–1995)[a]

	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
1/2 Pack or More Per Day Smoking							
Senior Year	2.03%	1.31% *	6.38%	7.16%	7.97%	6.63%	4.83%
One to Two Years After High School	4.73% *	2.04% *	16.30%	12.36%	19.89%	13.05%	10.05%
Change	2.70% *	0.73% *	9.92%	5.20%	11.92%	6.42%	5.22%
N	254	143	80	165	92	227	485
5+ Drinks in a Row/ Two Weeks							
Senior Year	20.06%	19.87%	29.12%	27.48%	23.10%	26.23%	23.73%
One to Two Years After High School	21.86% *	22.07% *	33.10%	24.95% *	40.04%	22.73% *	25.21%
Change	1.81% *	2.20%	3.98%	-2.52% *	16.94%	-3.50% *	1.47%
N	238	134	65	157	83	202	443
Marijuana Use in the Last 30 Days							
Senior Year	18.69%	19.76%	29.77%	24.91%	21.12%	25.97%	22.77%
One to Two Years After High School	26.77%	18.93%	22.07%	24.99%	16.57%	22.92%	23.04%
Change	8.07%	-0.83%	-7.70%	0.09%	-4.55%	-3.05%	0.27%
N	252	144	70	167	91	233	491
Cocaine Use in the Last 30 Days							
Senior Year	0.76%	3.30%	3.74%	3.38%	2.09%	2.24%	2.33%
One to Two Years After High School	1.96%	2.33%	2.14%	3.48%	0.36%	2.81%	2.35%
Change	1.20%	-0.98%	-1.60%	0.10%	-1.73%	0.58%	0.02%
N	258	156	83	175	94	244	512

* Indicates difference from those in the active duty military is significant at the 0.05 level

[a]All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates Senior Year drug use. The actual number of cases is slightly higher.

Table 11
Prevalence of Substance Use During Senior Year, and One to Two Years After High School, by Occupation/Living Arrangements
Hispanic Males (1976–1995)*

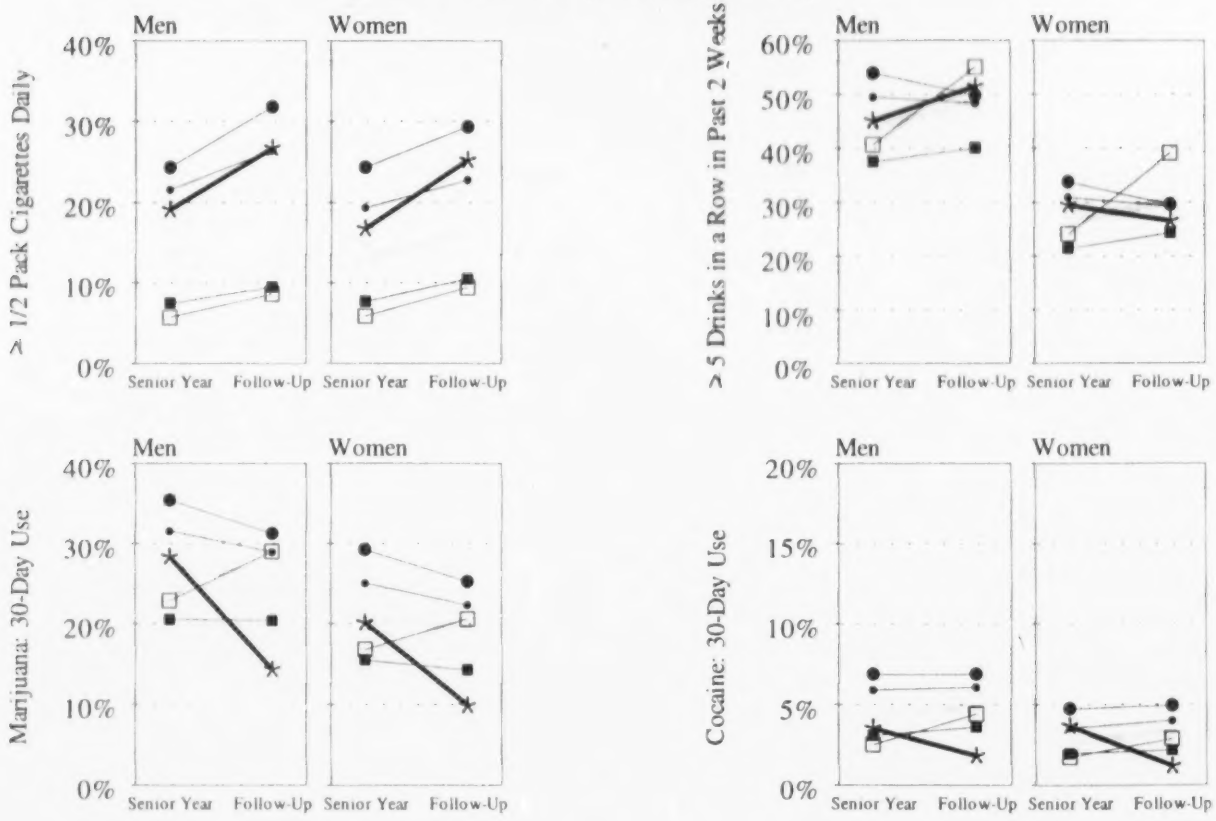
	College / Not Living With Parents	College / Living With Parents	Full-Time Job / Not Living With Parents	Full-Time Job / Living With Parents	Military—Active Duty	Other	Total
1/2 Pack or More Per Day Smoking							
Senior Year	2.32%	2.66%	6.38%	8.90%	3.74%	3.99%	4.58%
One to Two Years After High School	3.38%	3.26%	9.48%	10.57%	5.30%	6.32%	6.17%
Change	1.05%	0.59%	3.10%	1.67%	1.56%	2.33%	1.59%
N	98	139	46	120	39	149	307
5+ Drinks in a Row/ Two Weeks							
Senior Year	33.24%	34.11%	40.98%	42.04%	32.66%	41.41%	37.69%
One to Two Years After High School	43.89%	31.52%	38.84%	36.66%	33.61%	40.89%	37.68%
Change	10.65%	-2.58%	-2.14%	-5.38%	0.95%	-0.52%	-0.01%
N	102	134	39	110	37	134	281
Marijuana Use in the Last 30 Days							
Senior Year	12.64%	14.23%	20.68%	27.07%	18.56%	27.47%	20.71%
One to Two Years After High School	20.93% *	14.85%	22.13%	18.60%	4.25%	20.25% *	17.82%
Change	8.28% *	0.62%	1.45%	-8.47%	-14.30%	-7.22%	-2.89%
N	103	138	45	124	41	149	313
Cocaine Use in the Last 30 Days							
Senior Year	2.30%	3.24%	7.74%	8.31%	3.80%	7.47%	5.54%
One to Two Years After High School	5.43%	2.08%	9.22%	6.03%	0.00%	4.20%	4.37%
Change	3.13%	-1.15%	1.49%	-2.28%	-3.80%	-3.27%	-1.16%
N	105	146	45	127	41	148	316

* Indicates difference from those in the active duty military is significant at the 0.05 level

*All cases are weighted to adjust for differential selection probabilities and for differential panel attrition rates Senior Year drug use. The actual number of cases is slightly higher.

FIGURES

Figure 1. Prevalence of Substance Use by Gender (1976–1995, combined)



Note: The figure represents results of ANOVAs of panel data collected from annual random samples of high school seniors in the 48 contiguous states; senior-year responses were compared with responses obtained one to two years after high school.

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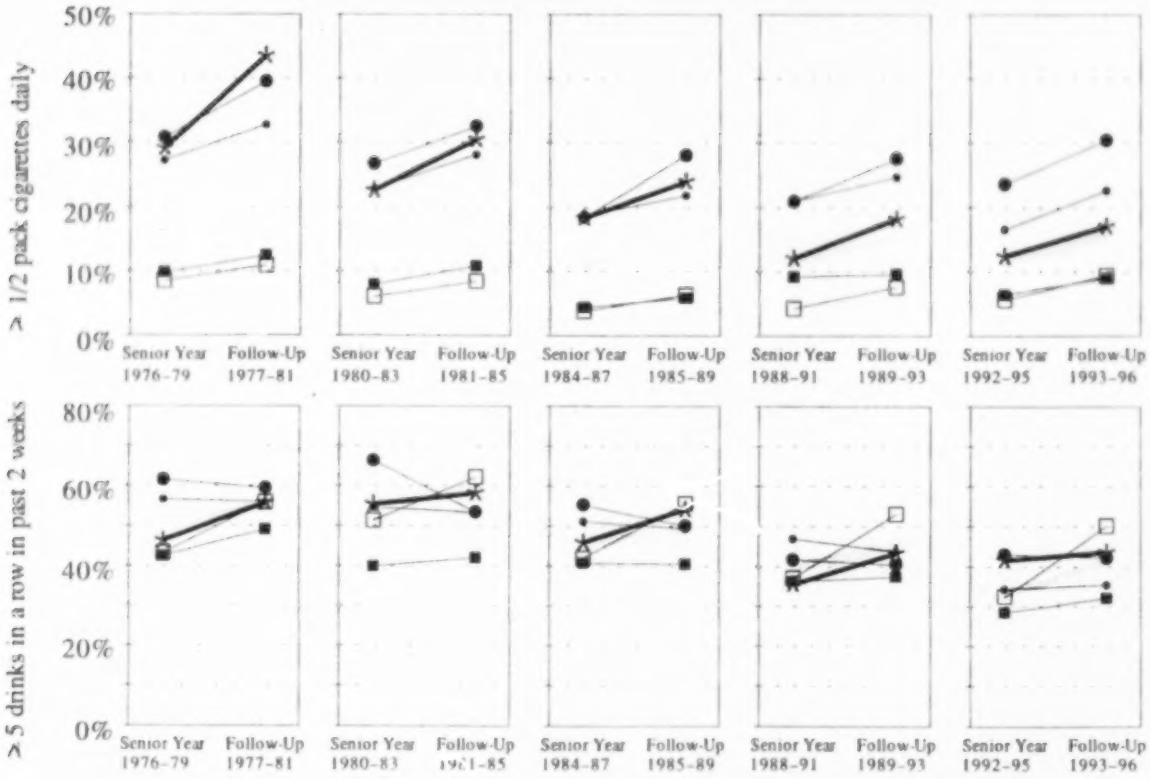
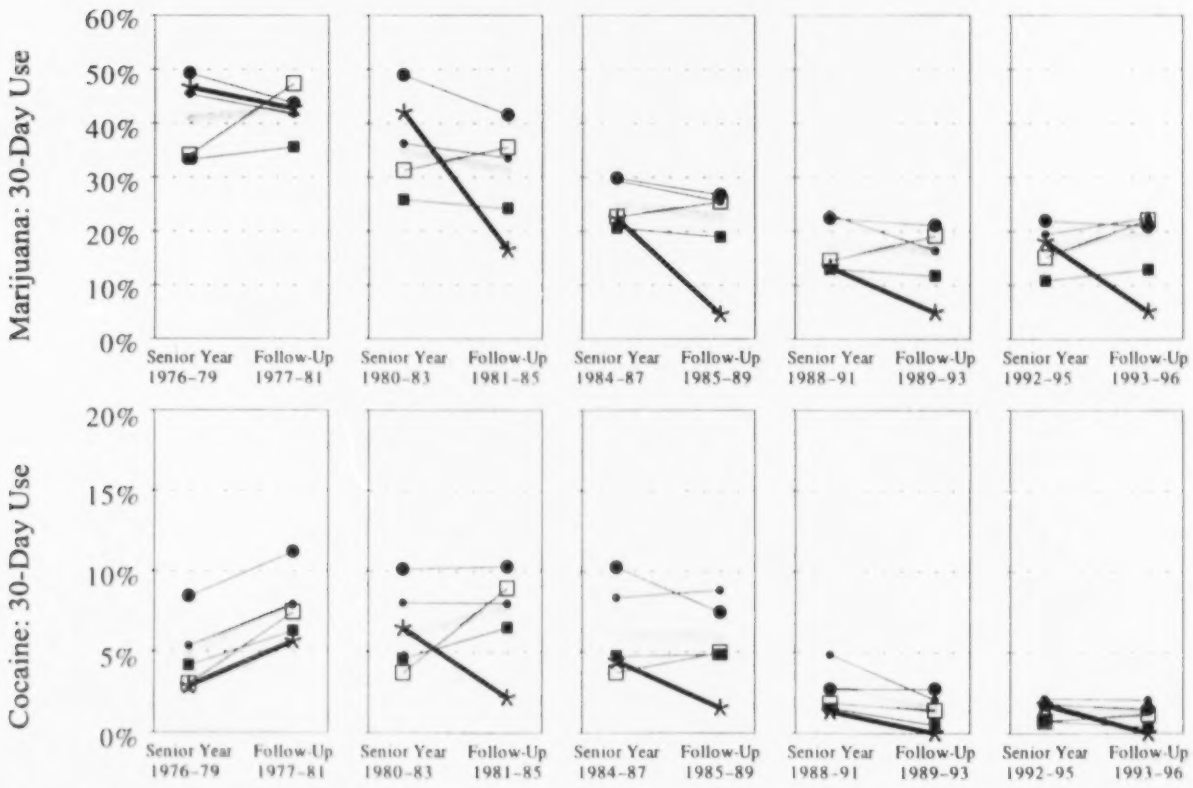
Figure 2. Changes in Prevalence of Smoking and Heavy Drinking Among Men in Different Time Periods



Note: The figure represents results of ANOVAs of panel data collected from annual random samples of high school seniors in the 48 contiguous states; senior-year responses were compared with responses obtained one to two years after high school.

Figure 3. Changes in Prevalence of Illegal Drug Use Among Men in Different Time Periods



Note: The figure represents results of ANOVAs of panel data collected from annual random samples of high school seniors in the 48 contiguous states; senior-year responses were compared with responses obtained one to two years after high school.

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